

### **Abstract**

The present invention provides an optical fiber which inherently has sufficient mechanical strength in compression to facilitate compression tuning of a grating therein. This is achieved by manufacturing a fiber that has an unusually large diameter cladding and a substantially single mode core. The fiber includes optically active material so that the fiber can be employed in a fiber laser. The fiber is preferably photosensitive so that the grating(s) can be written into the fiber after manufacture, although other means of impressing, forming or writing the grating are envisaged and the grating(s) can be written into the fiber at the time of manufacture if desired.